

ABSTRACT

In a method of removing acidic compounds, color, and polynuclear aromatic hydrocarbons, and for removing or converting hydrocarbons containing heteroatoms from petroleum distillates, phase transfer catalyst is employed to facilitate the transfer of inorganic or organic bases to the substrate of the distillate. An inorganic or organic base, a phase transfer catalyst selected from the group including quaternary ammonium salts, polyol ethers and crown ethers, and used oil distillate are mixed and heated. Thereafter, contaminants are removed from the used oil distillate through distillation. A solvent is then mixed with the resulting distillate to extract contaminants therefrom. The solvent is recovered and distilled to separate the contaminants therefrom, and is then reused. The petroleum distillate having the contaminants separated therefrom is also distilled to remove any remaining solvent therefrom, with the recovered solvent being reused.